Disparities in Dermatology: A Reflection

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We share a passion for advancing racial and ethnic equity in science, medicine, and health. The aim of our manuscript is to illuminate longstanding racial disparities engrained within the American healthcare system and practice of medicine with a special focus on racial and ethnic diversity within the field of dermatology. We highlight crucial contributory factors that have perpetuated racial and ethnic disparities within the field, such as disparities in provider background, access to care, and resident education. We propose necessary and practical interventions that can improve representation, education, and research, and ultimately lead to improved patient outcomes and dermatological care.

KEYWORDS: Dermatology, skin of color, race, ethnicity, equity, disparities, medical education, representation in medicine, patient outcomes

Whether we like to acknowledge it or not, racism has permeated the landscape of America since its inception. While recent outcry against racial injustice and calls to action have been heard and echoed across the country, current events provide a near daily reminder—if one was ever needed—that a long road still lies ahead until equity is achieved within healthcare, let alone within society.

Disparities in public health and the medical field surely do not occur in isolation. The systemic and structural racism that pervades the fabric of society at large—including in employment, housing, and education—extends into the fields of public health and healthcare. In other words, health inequity is perpetuated by social, economic, and environmental disparities in communities of color. We must collectively be willing to explore and face the unsightly past that has led us to the current climate within U.S. healthcare so that we might better remedy its negative impact.

In turning inward to evaluate the healthcare field, disparities research often focuses on health problems faced by people of color and neglects the perpetrators of racist practices and institutions that enable these problems.[1] The lack of diversity of decision makers in public health research, policymakers, medical educators and officials, hospital administrators, insurance and pharmaceutical executives, as well as healthcare providers plays a critical role in creating and maintaining health inequalities.[1]

That the healthcare provider workforce does not mirror the population it serves in terms of racial and ethnic background has long been noted as a concern. The AAMC Diversity in Medicine: Facts and Figures 2019 report demonstrates that among active physicians, 56.2 percent identified as White, 17.1 percent as Asian, 5.8 percent as Hispanic, 5.0 percent as Black or African American, with 13.7 percent Unknown, making it the largest subgroup after White and Asian.[2]

There has been over a decade of formal commitment by medical school leaders to embrace diversity and inclusion as key components of their institutions' missions and goals, and to adopt programs aimed at achieving institutional diversity and increasing the number of qualified applicants representing diverse backgrounds.[3] Despite these efforts, there has been a marginal difference in achieving diversity in medical education. In 2018, the number of Black or African American male medical student applicants and matriculants had actually decreased since 1978.[3]

Similar patterns exist among resident physicians with the 2019–2020 Number of Active MD Residents by Race/Ethnicity and GME Specialty demonstrating that overall, 50.8 percent of active U.S. citizen MD residents identified as White, 21.8 percent Asian, 7.5 percent Hispanic, 5.5 percent Black or African American, 0.6 percent American Indian or Alaska Native, and 0.2 percent Native Hawaiian or Other Pacific Islander.[4] 16.5 percent of active MD residents were non-U.S. citizens in 2019–2020.[4]

Specifically within the field of dermatology, the lack of racial and ethnic diversity is a topic that has garnered increased attention in recent years. Both in the general media as well as in medical journals, there have been numerous calls to action to diversify and increase representation within the field. Currently, Black dermatologists comprise only three percent and Hispanic dermatologists comprise 4.2

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percent of dermatologists despite the fact that 13.4 percent of Americans are Black and 18.5 percent of Americans are Hispanic.[5,6] In the last few years, the discrepancy between overall population demographics and dermatology provider background has begun to diminish, though marginally so. In 2019–2020, active MD residents within the field of dermatology reported race and ethnicity as 64.0 percent White, 22.9 percent Asian, 4.6 percent Black or African American, 6.6 percent Hispanic, 0.7 percent American Indian, 0.2 percent Native Hawaiian or other Pacific Islander, 3.6 percent Other, 5.2 percent Non-U.S. Citizen or Non-Permanent Resident.[4]

We posit that increasing diversity among the provider workforce within the field of dermatology will lead to improved patient outcomes overall and to decreased disparities in dermatological care. While race-concordant visits are by no means a prerequisite for quality care, numerous publications have demonstrated that race-concordant visits last longer and that patients are more satisfied, rate their physicians as more participatory, and provide higher ratings of positive patient affect.[5] Furthermore, physicians from underrepresented racial and ethnic groups improve the quality of patient care by increasing access to care, providing culturally competent care, and contributing culturally diverse perspectives within the specialty at large. With regards to increasing access to care, studies have shown that Black and Hispanic physicians, for example, are more likely to practice in areas that are underserved or understaffed, to care for poor patients or those with Medicaid or no health insurance, and to care for patients who report poor health status and use more acute medical services.[5,7]

It is equally important that a diverse dermatologic workforce benefits the specialty as a whole by fostering advancements in research, treatment approaches, and cultural understanding that help to address specific concerns among diverse patient populations. Broadening of the collective knowledge and experience of the specialty in turn allows practitioners of all backgrounds to better serve their diverse communities.

Pandya et al[5], Pritchett et al[8], and Granstein et al[9], among others, have outlined avenues by which racial and ethnic diversity in the field of dermatology can be improved. An important part of this discussion centers on mentoring and supporting underrepresented-in-medicine (UIM) students to increase their rates of matriculation to medical school, increasing early medical student exposure to dermatology, and prioritizing diversity in the dermatology residency selection process.[10,11]

Equally pressing is the need for the diversification and increased representation of skin of color in dermatology educational materials. The clinical presentation of cutaneous pathology can vary considerably in different skin types. Numerous studies note the lack of comprehensive illustration of pathology in patients of all skin tones.[12,13] For example, a study evaluating the representation of skin types in general medicine textbooks showed minimal skin type diversity, with 4.5 percent of images showing dark skin.[14] Another study of six commonly used dermatology textbooks demonstrated that the percentage of images showing dark skin ranged from 4 to 18 percent, with only one textbook showing an increase greater than one percent in dark skin images over the past 15 years.[14]

As a result, learning to recognize dermatological conditions in skin of color is not inherent in training and must often be sought out as a supplement to the standard dermatology curriculum. In other words, the pattern recognition required for accurate diagnosis is hindered by the lack of representation of skin of color in educational materials. Since the ability to recognize diseases in non-White skin is diminished, common dermatological conditions, such as eczema or psoriasis, often go misdiagnosed or undiagnosed, leading to prolonged, unnecessary patient suffering and worse patient outcomes. Increasing representation in educational materials used in core dermatology curricula will allow for improved accuracy of diagnosis and the ability to focus attention on understanding treatment nuances.

Additionally, there exists a need to diversify dermatology research. Both with regards to increasing the participation of people of color in clinical trials for conditions without predilection for a particular skin type, as well as increasing the breadth of studies to include conditions that disproportionately affect skin of color. Doing so will allow for the potential development of additional treatment options and an improved understanding of population variations in safety and efficacy of treatments.

Currently, skin of color representation in clinical trials is poor. A systematic review of the dermatology literature analyzed the degree of racial, ethnic, and sex representation in randomized clinical trials identified between July 2010 and July 2015 for acne, psoriasis, atopic dermatitis and eczema, vitiligo, alopecia areata, seborrheic dermatitis, and lichen planus.[15] These conditions are common, lack specific racial predilection, and are well studied.[15] Overall, only 59.8 percent of studies conducted within the United States reported the racial or ethnic demographics of study participants. Among those RCTs that did report race, 74.4 percent of study participants were White.[15]

Lack of diversity in provider background, educational materials, and representation in clinical trials is a problem that is particularly relevant to dermatology, a visual field, but it is by no means unique to dermatology. Whether it be lack of proper recognition of common dermatological skin conditions or poorly managed pain, as medical students are often inadvertently taught to internalize the implicit biases of their predecessors, for example, the false notion that African Americans have a biologically different pain threshold.[16] The reality is that lack of diversity can adversely affect patient outcomes and contribute to healthcare disparities in all fields of medicine. Conversely, we believe that increasing diversity will lead to improved patient outcomes and decreased healthcare disparities.

It is important to understand and critically assess the well-institutionalized ideologies and hurdles that have led to centuries of oppression of Americans of color and the resultant health inequalities. While larger, institutional-level changes are fundamental to remedying the situation at hand, change can and should begin at the individual level.

We propose a mindset shift that encompasses a listen-learn-act approach. Listen to your thoughts, to the words and actions of others, to the stories of those whose voices too often go unheard. Learn about yourself, your implicit biases, and your surroundings. Educate yourself on relevant matters and educate others if you are in the position to do so. Engage in dialogue with colleagues within and outside your field to

exchange ideas and foster collaboration from which we can all mutually benefit and learn how to do better for our patients and for future generations.

And lastly, act. No action is too small, whether it be by way of mentorship, education, or otherwise. We are all equipped with a slightly different armamentarium and uniquely positioned to make an impact, each in our own way. Slowly but surely, we can achieve a broad shift in mindset and awareness that can enable our institutions and the healthcare system at large to move toward a more just and equitable future for all.

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